REMARKS

The Office Action indicated that the subject matter of Claim 3 would be allowed if rewritten in independent form. Accordingly, new Claim 14 represents the allowed subject matter and dependent Claims 15-19 are believed to be allowable.

Applicant is hereby resubmitting a copy of the A820 Form listing the references for the Information Disclosure Statement of June 21, 2004.

The present invention is in the field of energy saving light devices and more particularly, a compact self-ballasted fluorescent lamp that can be used to replace an incandescent lamp within the same socket and approximately the same perimeter dimensions that were occupied by the incandescent lamp. As can be readily appreciated, this is a relatively crowded field with a large number of engineers and scientists trying to provide both improvements in lighting capacity and savings in power usage.

In this environment, the present invention addressed issues associated with the impact of the relative thickness of the internal phosphor coating and the shape of the glass tube to provide a desired throw of the light, for example, in a downward illumination direction. For example, if a ceiling light is being replaced and if the visible light emitted in a fluorescent lamp is primarily directed in an orthogonal direction to the axis of the lamp, any useful illumination in a downward configuration is lessened. The present inventors recognize this issue and provided an improvement. The novelty of the present invention should, accordingly, be recognized in the environment of this particular field where such an improvement can have a significant impact on the utilization of energy-saving devices.

Referring to Claim 1 amended, our glass tube defines a spiral part shaped as a curve that advances along the axis from the turning part. It is believed that this definition in Claim 1

amended also represents allowed subject matter, in defining a relationship of the glass tube to the axis from the turning part.

The Office Action contended that Claims 1, 5 and 7 were anticipated under 35 U.S.C. §102 over the *Anandan et al* (U.S. Patent No. 5,708,324). The Office Action relied upon Figures 1A and 2A to disclose a flat fluorescent lamp having channels, of a hemispherical shape, extending spirally in a horizontal plane. Preferably the channels were molded as part of a flat panel and capped with a glass front panel. The front panel had an inner surface covered with a protective layer of fine particulate material such as aluminum oxide, titanium oxide, etc. to form a barrier between mercury ions in the glass to prevent any discoloration. As described in the specification, the particular shape and configuration of the flat uniform spiral shape was important to avoid the accumulation of cold spots for mercury to darken the front panel.

Claim 4 was further rejected as being obvious over the *Anandan et al* (U.S. Patent No. 5,708,324) with an assertion that a particular range of density would be a mere design choice. As noted on Page 29 of our specification, our range was determined to provide a viable range about a maximum luminous flux of 5.8 mg/cm^2.

As can be appreciated, this design is also based on a determination of an appropriate thickness in the thicker first area which is also set forth on Page 29 as 5 mg/cm^2 to 30 mg/cm^2. Based on empirical experiment, the measurement results can be seen in Figure 9 of our present application and accordingly, it is submitted that there is adequate support in our specification on the importance of our ranges, and that if this rejection is continued, that a reference should be cited to support this position as required in MPEP §706.02(a).

Claims 1 and 7 were rejected over a combination of the *Anandan et al* (U.S. Patent No. 5,811,925) in view of the *Anandan et al* '324 patent.

The '925 patent also is directed to an inwardly molded flat compact fluorescent lamp which can be molded with a spiral convoluted channel basically maintained within the same plane. The amended Claim 1 is also equally distinguished over the '925 patent based on any purported combination with the '324 patent.

Finally, the *Maya et al* (U.S. Patent No. 5,592,052) was cited in combination with the '324 patent against Claim 6 to provide a dynamic variation of color temperature. The *Maya et al* reference, however, does not address the features set forth in the currently amended Claim 1 from which Claim 6 depends.

Our present invention is in the field of winding a glass tube to match the peripheral dimensions of an incandescent lamp and is not directed to a flat compact fluorescent lamp. In the present invention, the arc tube is shaped as a curve that, from the turning point towards the ends, turns around an axis to advance along the axis from the turning point, thereby providing a coil or pair of coils interleaved to maximize light production and direction. The issue of a flattened spiral of hemispherical configurations is not defined in our present claims.

Thus, as noted on Page 11 of our present specification, and as shown in Figures 1 and 2 of our application, the pitch between two adjacent glass tubes belonging to one spiral part throughout the turning part to the end of the spiral part, supports the shaping of the spiral part as a curve that advances along the axis from that turning point.

In view of the amendment to Claim 1 and the redrafting of allowed Claim 3 as an independent Claim 14, it is believed that the case is now in condition for allowance and an early notification of the same is requested.

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If the Examiner believes a telephone interview will help further the prosecution of this case, undersigned attorney can be contacted at the listed phone number.

I hereby certify that this correspondence is being transmitted via facsimile to the USPTO at 571-273-8300 on December 27, 2005.

By: Sharon Farnus
Sharon Farnus
Signature

Dated: December 27, 2005

Very truly yours,

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